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EXAMINER
MAKI, STEVEN D

ART UNIT	PAPER NUMBER
1733	

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Please find below and/or attached an Office communication concerning this application or proceeding.

A210

Office Action Summary	Application No.	Applicant(s)	
	09/806,006	GERRESHEIM ET AL.	
	Examiner	Art Unit	
	Steven D. Maki	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 March 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,5,7 and 9-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,5,7 and 9-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

1) The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2) Claims 1, 2, 4, 5, 7 and 9-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the subject matter of having narrower grooves having a width of 10 mm or less in the super wide groove. The original disclose describes recessed regions 10 in the superwide groove but fails to teach that the recessed regions are narrower grooves having a width of 10 mm or less.

3) The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4) Claims 1, 2, 4, 5, 7 and 9-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1: With respect to "the width of the narrower grooves in said superwide groove is 10 mm or less", there is no antecedent basis for "the narrower grooves in said superwide groove".

In claim 1: With respect to the description of "at least two circumferential narrower grooves in comparison thereto", it is unclear if the at least two circumferential narrower grooves are narrower in comparison to (1) the narrower grooves having the width of 10 mm or less or (2) the superwide groove.

In claim 1, it is unclear with respect to what the sidewalls of the circumferential grooves are slightly inclined.

Claim 2 is ambiguous since the narrow groove width of 15 mm or less appears to broaden the narrow groove width of 10 mm or less in claim 1.

In claim 12, there is no antecedent basis for "the tyre shoulders". In claim 12, it is suggested to change "the tyre shoulders" to --shoulders of the tyre--.

In claim 13, there is no antecedent basis for "the grooves extending obliquely". In claim 13 line 1, it is suggested to change "claim 1" to --claim 11--.

In claim 13, it is unclear how "in particular" affects the scope of the claim. Also, there is no antecedent basis for "the tyre shoulders". In claim 13 last three lines, it is suggested to delete –and in particular a depth which increases or first decreases and then reduces towards the tyre shoulders--

In claim 15, "the grooves which are narrow in comparison thereto" should be --the narrower grooves--.

5) Claim 2 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 2 broadens claim 1 instead of requiring an additional limitation..

6) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7) **Claims 1, 2, 4, 7 and 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka (US 5679185) in view of Verdier (US 3682220) and Europe '305 (EP 676305) and optionally Europe '616 (EP 738616).**

Tanaka, directed to reducing noise without deteriorating wet performance, discloses a pneumatic tire having an asymmetrical tread comprising a combination of a **super wide circumferential groove** having a width of more than 16% TW in one tread half and a **narrow circumferential groove** having a width smaller than 8% TW in the other tread half. One of ordinary skill in the art would readily understand that the super wide groove improves wet performance / resistance to hydroplaning. The width of the super wide groove and the narrow grooves also effectively reduces overall tread noise / air resonance noise. Tanaka describes the sidewalls of the superwide groove as being at an angle of 0 degrees with respect to the normal to the tread surface. Tanaka does not recite slightly inclining the sidewalls of the superwide groove.

As to claim 1, it would have been an obvious alternative to provide the superwide circumferential groove of Tanaka et al such that the sidewalls are slightly inclined at an angle of 2-8 degrees with respect to the normal to the tread surface instead of at an angle of 0 degrees with respect to the normal to the tread surface in view of (a) Verdier's teaching that a wide circumferential groove having sidewalls inclined at a small backing off angle of 2-8 degrees *is an alternative to* a wide circumferential groove having no backing off angle (an angle of 0 degrees) and optionally (b) Europe '616 which shows the sidewalls of a super wide grove being slightly inclined at a angle α (see figure 1 and col. 4 line 47 which appears to teach angle α being 5 degrees).

Tanaka does not specifically recite providing at least two narrow grooves in the other half.

Europe '305 discloses a pneumatic tire having an asymmetric (non-uniformly profiled) tread. An **inside portion** of the tread comprises fine circumferential groove 23 and wide circumferential groove 5 having a width of at least 35 mm. An **outside portion** of the tread comprises fine circumferential groove 6 having a width of 1.5-7 mm and fine circumferential groove 23.

As to claim 1, it would have been obvious to provide at least two narrow circumferential grooves having slightly inclined sidewalls in the other tread half in Tanaka since Europe '305, which like Tanaka teaches using the combination of a superwide circumferential groove and a circumferential narrow groove, teaches that a tire having a super wide groove in one tread half and a narrow circumferential groove in the other tread half for providing higher cornering power, enhanced wet grip and

reduced noise, may have another circumferential fine groove 23 in the other tread half wherein (1) the circumferential fine groove 6 has slightly inclined sidewalls as shown in figure 2 and (3) Europe '305 teaches that circumferential fine groove 23 has a similar construction to the circumferential fine groove 6 (page 5).

Furthermore, the limitations of the super wide groove having a width greater than two times the width of the narrow grooves, the super wide groove having a width of at least 35 mm and the narrow grooves having a width of 10 mm or less would have been obvious in view of (a) Tanaka's suggestion to provide the super wide groove with a width of greater than 16% TW and the narrow groove with a width of less than 8% to reduce noise and improve wet performance and optionally (b) Europe '305's suggestion to use a super wide groove having a width of at least 35 mm and narrow circumferential grooves having a width of 1.5-7 mm. The limitation the super wide groove being disposed in the inner half of the one half of the tread would have been obvious in view of Tanaka (and optionally Europe '305's teaching) to locate a super wide groove in one tread half - Europe '305 specifically suggesting locating the groove at the inside.

As to claim 2, note Tanaka's teaching to use a narrow groove width of less than 8% TW and optionally Europe '305's teaching to use a fine groove width of 1.5-7 mm.

As to claim 4, the limitation of the circumferential grooves being straight would have been obvious since Tanaka (and optionally Europe '305) suggest using straight grooves.

As to claim 7, it would have been obvious to provide the bottom of the wide groove of Tanaka with the claimed varying depth across its width since Verider suggests using such a varying depth across the width of a wide groove (figure 4) to improve drainage.

As to claim 9, it would have been obvious to one of ordinary skill in the art to use a width of 40 mm for the wide groove and a width of 8 mm for the narrow grooves in Tanaka in view of (a) Tanaka's teaching to use a wide width of at least 16% TW for a wide groove and a narrow width of 4-8% TW for a narrow groove *to reduce noise* and optionally (b) Europe '305's teaching to use a wide width (at least 35 mm) and a narrow width (1.5-7 mm) for the wide groove and narrow groove respectively *to decrease noise*. Tanaka thereby teaches one of ordinary skill in the art that 8% TW instead of 7 mm is upper limit for reducing noise of a narrow circumferential groove.

As to claims 10-14, it would have been obvious to use the claimed oblique grooves in the tread of Tanaka since Europe '305 suggests using lateral grooves (oblique grooves) 22 in a tread which like than of Tanaka has a wide circumferential groove and a narrow circumferential groove. As to claim 11, note that this claim recites connected together "at least in part". As to claim 13, the limitation of the oblique grooves having a different depths over their longitudinal extent would have been obvious since it is taken as well known / conventional per se in the tire art to use lateral grooves having a increasing depth toward each tread edge in a tire tread in order to improve water removal / discharge.

8) **Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka (US 5679185) in view of Verdier (US 3682220) and Europe '305 (EP 676305) and optionally Europe '616 (EP 738616) as applied above and further in view of Swift et al (US 5425406).**

As to claim 5, it would have been obvious to position the inner wall of the wide groove and the inner wall of the narrow groove the same distance from the equatorial plane (tread center) since (a) Tanaka (and optionally Europe '305) suggest an asymmetrical tread comprising a super wide groove and a narrow circumferential groove and (b) Swift et al, also directed to an asymmetric tread comprising a wide circumferential groove and narrow circumferential grooves, shows locating the inner wall of the aquachannel (wide groove) and the inner wall of the narrow groove at about the same distance from the equatorial plane (see figure 1).

9) **Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka (US 5679185) in view of Verdier (US 3682220) and Europe '305 (EP 676305) and optionally Europe '616 (EP 738616) as applied above and further in view of Glover et al (US 5327952).**

As to claims 11-14, it would have been obvious to connect the circumferential grooves together using lateral grooves since (a) Europe '305 suggests using lateral grooves in addition to a wide circumferential groove and narrow circumferential grooves in an asymmetrical tread and (b) Glover et al suggests using lateral grooves in addition to a wide circumferential groove (aquachannel) and narrow circumferential grooves 16a in an asymmetrical tread (figure 5) such that all of the circumferential grooves are

connected (this connection is most clearly seen in the symmetrical embodiment figure 6). As to claim 13, the limitations of the oblique grooves having a different depths over their longitudinal extent would have been obvious since it is taken as well known / conventional per se in the tire art to use lateral grooves having a increasing depth toward each tread edge in a tire tread in order to improve water removal / discharge.

As to claim 15, it would have been obvious to use additional circumferential fine grooves as claimed since Glover et al, also teaching an asymmetrical comprising a wide circumferential groove and narrow circumferential grooves, clearly suggests using more than three circumferential grooves.

Remarks

10) Applicant's arguments with respect to claims 1-2, 4-5, 7 and 9-15 have been considered but are moot in view of the new ground(s) of rejection.

11) No claim is allowed.

12) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is 703-308-2068. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Steven D. Maki
May 30, 2003

STEVEN D. MAKI
PRIMARY EXAMINER
~~GROUP 1300~~
AU 1733

5-30-03